IN THE CLAIMS

Please amend the claims as follows:

Claim 1. (currently amended) A method of manufacturing a pneumatic tire with improved tire uniformity; the tire having a pair of spaced beads in bead portions, and at least one carcass ply extending between the beads and consisting of reinforcement cords embedded in a rubber matrix; the method being characterized by the steps of:

a) forming the rubber matrix from a matrix material that is a thermoplastic having a deflection temperature above which the thermoplastic matrix material is plastic, and below which the thermoplastic matrix material is non-plastic;

b) heating the thermoplastic matrix material to a temperature above the deflection temperature to render the thermoplastic matrix material plastic before the tire begins to cure and thereby to permit one or more of the reinforcement cords to be unrestricted and free to reorient themselves relative to other materials or components of the tire; ~~and~~

c) curing the tire in a tire mold while the thermoplastic matrix material remains plastic so that the reinforcement cords remain unrestricted and free to reorient themselves during the curing within the mold so that the reinforcement cords maintain or attain a uniform tension: and

d) cooling the thermoplastic matrix material to a temperature below the deflection temperature to render the thermoplastic matrix material non-plastic and thereby to restrict further reorientation of the one or more reinforcement cords subsequent to removing the tire from the tire mold.

Claim 2. (Cancelled) ~~Method, according to claim 1, characterized by the step of:~~

~~cooling the thermoplastic matrix material to a temperature below the deflection temperature to render the thermoplastic matrix material non-plastic and thereby to restrict further reorientation of the one or more reinforcement cords subsequent to removing the tire from the tire mold.~~

Claim 3. (cancelled)

Claim 4. (previously presented) Method, according to claim 1, wherein:

the deflection temperature is above 30 degrees C.

Claim 5. (original) Method, according to claim 4, wherein:

the deflection temperature is between 121 degrees C and 190 degrees C.

Claim 6. (previously presented) Method, according to claim 1, wherein the step b) of heating the thermoplastic matrix material includes:

heating the tire in the tire mold to above the deflection temperature to permit reorientation of the one or more reinforcement cords as the tire begins curing within the mold.

Claim 7. (previously presented) Method, according to claim 1, wherein:

the thermoplastic matrix material is selected from the group consisting essentially of sulfur vulcanizable, semi-sulfur vulcanizable and non sulfur vulcanizable thermoplastics, so that the thermoplastic matrix material is co-curable with surrounding rubber materials of the tire, wherein:

co-curing means cross bonding at interfaces of the thermoplastic matrix material and the surrounding rubber material such that the thermoplastic matrix material maintains thermoplastic properties in the rest of its volume even after cross bonding is completed and the surrounding rubber material is vulcanized.

Claim 8. (previously presented) Method, according to claim 1, wherein:

the reinforcement cords are selected from the group comprising aramid, steel, rayon, and nylon.

Claim 9. (previously presented) Method, according to claim 1, including the step of:

forming at least a portion of the bead portions from the thermoplastic matrix material.

Claim 10. (previously presented) Method, according to claim 9, wherein:

the thermoplastic matrix material is disposed between a bead and an adjacent portion of the carcass ply.

Claim 11. (previously presented) Method, according to claim 10, wherein:

the step b) of rendering the thermoplastic matrix material plastic permits the one or more reinforcement cords to slip with respect to a bead.

Claim 12. (cancelled)

Claim 13. (currently amended) A method of manufacturing a pneumatic tire for improving one or more tire uniformity characteristics, the tire having a pair of spaced beads in bead portions, and at least one carcass ply having a plurality of reinforcement cords and extending between the beads; the method being characterized by the steps of:

a) forming at least a portion of the bead portions from a thermoplastic material having a deflection temperature above which the thermoplastic material is plastic and below which the thermoplastic material is non-plastic;

b) heating the thermoplastic material to a temperature above the deflection temperature to render the thermoplastic material plastic before the tire begins to cure and thereby to permit the plurality of reinforcement cords to be unrestricted and free to reorient themselves relative to other reinforcement cords or other components of the tire; ~~and~~

c) curing the tire in a tire mold while the thermoplastic material remains plastic so that one or more of the plurality of reinforcement cords can reorient themselves during the curing within the mold so that the plurality of reinforcement cords maintain or attain a uniform tension; and

d) cooling the thermoplastic matrix material to a temperature below the deflection temperature to render the thermoplastic matrix material non-plastic and thereby to restrict further reorientation of the one or more reinforcement cords subsequent to removing the tire from the tire mold.

Claim 14. (previously presented) Method, according to claim 13, wherein the step b) of heating the thermoplastic material includes:

heating portions of the tire to above the deflection temperature to permit reorientation of the one or more reinforcement cords.

Claim 15. (previously presented) Method, according to claim 14, wherein:

reorienting of the one or more reinforcement cords includes slipping of

the one or more reinforcement cords with respect to the bead.

Claim 16. (previously presented) Method, according to claim 15, wherein:

the thermoplastic material has a deflection temperature between 30 degrees C and 190 degrees C; and

the thermoplastic material is selected from the group consisting essentially of sulfur vulcanizable, semi-sulfur vulcanizable and non sulfur vulcanizable thermoplastics, so that the thermoplastic material is co-curable with surrounding rubber materials of the tire, wherein:

co-curing means cross bonding at interfaces of the thermoplastic material and the surrounding rubber material such that the thermoplastic material maintains thermoplastic properties in the rest of its volume even after cross bonding is completed and the surrounding rubber material is vulcanized.

Claim 17. (original) Method, according to claim 16, including:

disposing the thermoplastic material at least partially around the beads to form a thermoplastic layer.

Claim 18. (previously presented) Method, according to claim 13, further including:

forming the at least one carcass ply from a plurality of reinforcement cords embedded in a matrix material that is a thermoplastic having a deflection temperature above which the thermoplastic matrix material is plastic, and below which the thermoplastic matrix material is non-plastic.

Claim 19. (previously presented) Method, according to claim 1, wherein the step b) of heating the thermoplastic matrix material includes:

before placing the tire in the tire mold, heating the thermoplastic matrix material to above the deflection temperature to permit reorientation of the one or more reinforcement cords before the tire begins curing.

Claim 20. (previously presented) Method, according to claim 14, wherein:

at least a part of a bead portion is heated to above the deflection temperature.